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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------------|------------------|
| 10/633,905 | 08/04/2003 | Neil J. Goldfine | 1884.1020-009 | 7549 |
| 21005 | 7590 | 05/19/2004 | | |
| HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133 | | | | |
| | | | EXAMINER PATIDAR, JAY M | |
| | | | ART UNIT 2862 | PAPER NUMBER |

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/633,905

Applicant(s)

GOLDFINE ET AL.

Examiner

Jay M. Patidar

Art Unit

2862

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>8/4/2003</u> . | 6) <input type="checkbox"/> Other: ____. |

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.
2. The abstract of the disclosure is objected to because the abstract does not set forth the nature and gist of the invention.

Correction is required. See MPEP § 608.01(b).

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: How electrical property of the material is periodically measured as set forth in claim 1; perforations in the sensor as set forth in claim 15; the subject matter of claim 14.

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the temperature sensor (claim 9); the guides (claim 16); a mechanism (claim 17); dielectrometer (claim 24); temperature and strain gauge (claims 26-27); a drive conductor, inductive coils, magnetoresistive elements, SQUIDS and differential coils (claims 28-32) must be shown or the feature(s) canceled from the claim(s).

No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention:

In claim 1, it is not clear as to what is meant by "periodically measuring"; how the material properties is monitored; how at least one electrical property of the material is measured; what is the sensor footprint? The "footprint" is not clearly defined; There is no antecedent basis for "sensor footprint";

In claim 4, it is not clear as to how primary winding excites a periodic magnetic field; what is a periodic magnetic field;

In claim 5, it is unclear as to how absolute electrical conductivity is measured;

In claim 10, it is unclear as to how the sensor is calibrated;

In claim 14, the scope of the language is not clear from the language of the claim; the phrase "to permit.." is not clearly understood;

In claim 15, it is unclear as to how perforations in the sensor allows corrosion to occur in the test material;

In claim 16, it is unclear as to how guides permit scanning eddy current sensors to inspect with the permanently mounted eddy current sensor remaining in place;

In claim 16, there is no antecedent basis for "permanently mounted eddy current sensor";

In claim 17, there is no antecedent basis for "sensor windings";

In claim 33, it is not clear as to how measurement grids are used to convert the sensor response to one or more properties of interest.

The claims not specifically addressed share the indefiniteness as they depend from rejected base claims.

6. The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5,12-13,23-24,28-29,33 (insofar as understood) are rejected under 35 U.S.C. 102(b) as being anticipated by Goldfine et al. (5,453,689).

Goldfine discloses a method for measuring material properties wherein at least one property of the material under test is periodically measured using eddy current sensor (co. 27, lines 55+); primary winding (col. 1, lines 33+); measuring electrical conductivity (col. 2, lines 25+).

As to claim 23, the sensor is conformable (col. 5, lines 6+).

As to claim 24, the sensor is a dielectrometer (col. 21, line 34).

As to claim 33, Goldfine teaches to use grids (col. 15, line 14).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-11,14,16,17,25-27,30-32 (insofar as understood) are rejected under 35 U.S.C. 103(a) as being unpatentable over Goldfine et al.

Goldfine discloses a method of measuring material properties as explained above. The use of less damage area for reference measurement, temperature sensor for compensation since property of material is dependent on the temperature are known in the art. It would have been obvious to one having

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ordinary skill in the art at the time the invention was made to use temperature sensor to compensate the temperature variance.

As to claims 25-27, a second sensor is incorporated with the electromagnetic sensor (col. 6, line 25). The use of strain/temperature gauge is known in the art for its use.

As to claims 30-32, the use of different type of magnetic field sensor would be within the level of ordinary skill in the art since they are interchangeable.

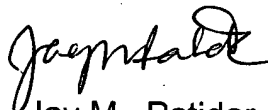
8. Claims 15,18-22 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay M. Patidar whose telephone number is 571-272-2265. The examiner can normally be reached on M-Thur 7:00-5:30.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Jay M. Patidar
Primary Examiner
Art Unit 2862

May 13, 2004